Current Listing Of Claims:

1. (Currently Amended) A method comprising:

depositing a film layer on a substrate;

depositing a <u>non-chemically amplified</u> photoresist layer upon the film layer, the <u>non-chemically amplified</u> photoresist having a developer-soluble resin component and a photoactive compound component, the photoactive compound inhibiting the solubility of the developer-soluble resin;

exposing selected portions of the <u>non-chemically amplified</u> photoresist layer to a light source such that a solubility of the selected portions of the <u>non-chemically amplified</u> photoresist layer is promoted; and

developing the exposed portions of the <u>non-chemically amplified</u> photoresist layer.

- 2. (Original) The method of claim 1 wherein the developer-soluble resin is a polyhydroxystyrene-based compound.
- 3. (Currently Amended) The method of claim 2 wherein the solubility of the selected portions of the <u>non-chemically amplified</u> photoresist layer is promoted by the photoactive compound forming an acid.

-2-

Application No. 10/687,288

Amendment filed: February 21, 2006

Reply to Office Action of September 20, 2005

4. (Original) The method of claim 2 wherein the photoactive compound contains a

phenyl group.

5. (Original) The method of claim 3 wherein the acid is a carbonyl acid.

6. (Original) The method of claim 1 wherein the developer-soluble resin is produced

through a free radical polymerization process using a component selected from the group

consisting of vinyl acid, vinyl phenol, and vinyl phenol substitutes.

7. (Original) The method of claim 1 wherein the light source has a wavelength in the

extreme ultra-violet region.

8. (Currently Amended) The method of claim 7 further comprising:

etching portions of the film layer underlying the exposed portions of the non-

chemically amplified photoresist layer; and

etching a remaining portion of the non-chemically amplified photoresist layer to

produce a patterned film layer having one or more features, at least one of the features having

a critical dimension of approximately 15 nanometers.

9. (Original) The method of claim 8 wherein the at least one feature has a line wide

roughness of less than 2 nanometers.

-3-

Application No. 10/687,288

Amendment filed: February 21, 2006

Reply to Office Action of September 20, 2005

10. (Currently Amended) A <u>non-chemically amplified</u> photoresist comprising:

a resin component, the resin soluble in a developer; and

a photoactive compound, the photoactive compound uniformly distributed within the

non-chemically amplified photoresist, the photoactive compound promoting solubility of a

selected portion of the <u>non-chemically amplified</u> photoresist exposed to a light source and

inhibiting the solubility of an unexposed portion of the <u>non-chemically amplified</u> photoresist.

11. (Currently Amended) The <u>non-chemically amplified</u> photoresist of claim 10 wherein

the resin component is a polyhydroxystyrene-based compound.

12. (Currently Amended) The photoresist of claim 11 wherein the solubility of the

selected portion of the non-chemically amplified photoresist is promoted by the photoactive

compound forming an acid.

13. (Currently Amended) The non-chemically amplified photoresist of claim 12 wherein

the photoactive compound contains a phenyl group.

14. (Currently Amended) The <u>non-chemically amplified</u> photoresist of claim 12 wherein

the acid is a carbonyl acid.

15. (Currently Amended) The non-chemically amplified photoresist of claim 10 wherein

the resin component is produced through a free radical polymerization process using a

-4-

Application No. 10/687,288

Amendment filed: February 21, 2006 Reply to Office Action of September 20, 2005

component selected from the group consisting of vinyl acid, vinyl phenol, and vinyl phenol substitutes.

16. – 20. (Cancelled)